

CLAIMS

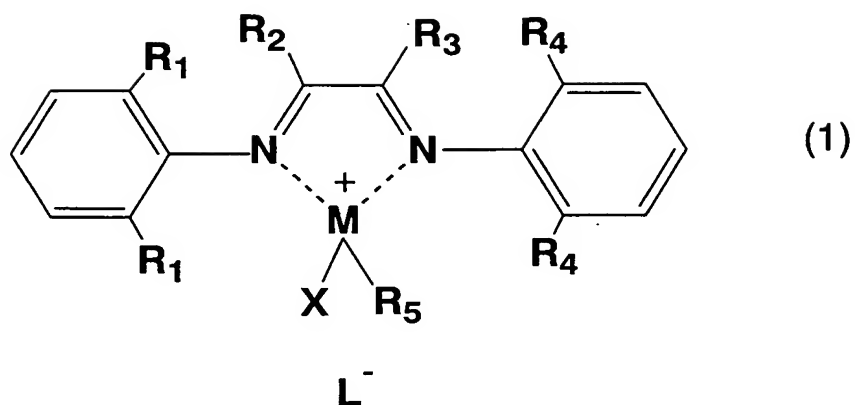
1. A polyolefin graft copolymer, wherein an olefin monomer is graft-copolymerized to modified particles of a metallic compound in the presence of a coordination polymerization catalyst.

2. The polyolefin graft copolymer of Claim 1, wherein said coordination polymerization catalyst is a coordination polymerization catalyst of a late transition metal complex.

3. The polyolefin graft copolymer of Claim 2, wherein said coordination polymerization catalyst of a late transition metal complex is a complex comprising a ligand having 2 imine nitrogens and a transition metal selected from the VIII to X group of elements in the periodic table.

4. The polyolefin graft copolymer of Claim 3, wherein said coordination polymerization catalyst of a late transition metal complex is a complex comprising an α -diimine ligand and a transition metal selected from the X group of elements in the periodic table.

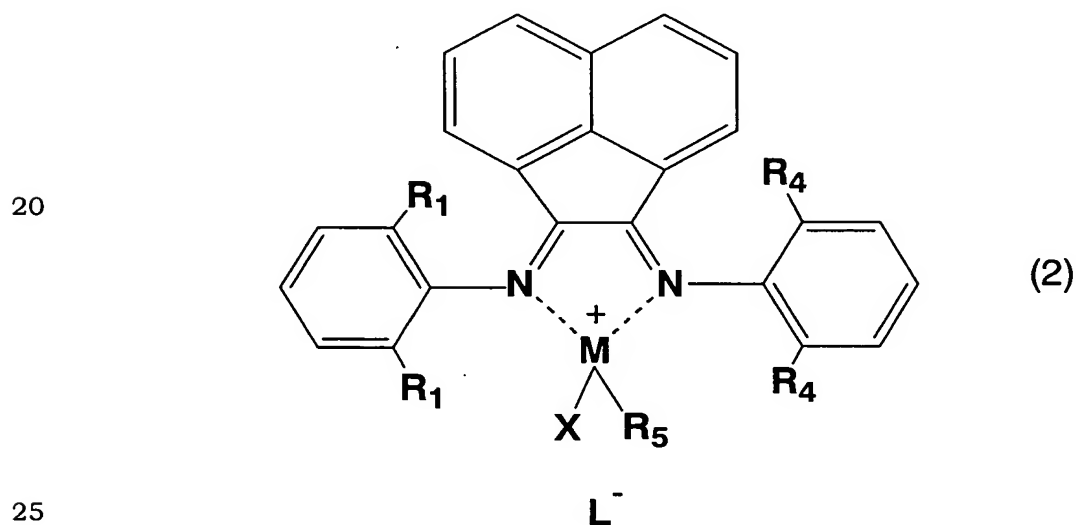
5. The polyolefin graft copolymer of Claim 4, wherein said coordination polymerization catalyst of a late transition metal complex is an activated species represented by the following general formula (1) or general formula (2),



(wherein, M represents a palladium or nickel. Each of R_1 and R_4 independently represents a hydrocarbon group having 1 to 4 carbon atoms. R_2 and R_3 represent each independently a hydrogen atom or a methyl group. R_5 represents a halogen atom, a hydrogen atom or an organic group having 1 to 20 carbon atoms. X represents an organic group having a hetero atom coordinatable to M, and may be connected to R_5 , or may not exist. L^{-} represents anion),

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(wherein, M represents a palladium or nickel. Each of R_1 and R_4

independently represents a hydrocarbon group having 1 to 4 carbon atoms. R₅ represents a halogen atom, hydrogen atom, or an organic group having 1 to 20 carbon atoms. X represents an organic group having a hetero atom coordinatable to M, and may be connected to R₅, or
5 may not exist. L⁻ represents anion), after reacting with a co-catalyst.

6. The polyolefin graft copolymer of any one of Claims 1 to 5, wherein said olefin monomer is an α -olefin having at most 10 carbon atoms.

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7. The polyolefin graft copolymer of any one of Claims 1 to 6, wherein said metallic compound comprises at least one metal selected from the group consisting of sodium, potassium, beryllium, magnesium, calcium, strontium, barium, titanium, molybdenum, iron, zinc,
15 aluminum, gallium, silicon, tin, lead, and antimony.

8. The polyolefin graft copolymer of Claim 7, wherein said metallic compound is any one selected from an oxide, a hydroxide, a carbonate, a sulfate, a silicate, a nitride, a titanate, a zirconate, a borate,
20 a sulfide, a carbide, and a borate.

9. The polyolefin graft copolymer of Claim 8, wherein said metallic compound is magnesium hydroxide or silica.

25 10. The polyolefin graft copolymer of any one of Claims 1 to 6, wherein said metallic compound is a clay compound.

11. The polyolefin graft copolymer of any one of Claims 1 to 10, wherein modified particles of the metallic compound is modified particles obtained by reacting a metallic compound and a compound having a functional group, and said compound having a functional group is a compound having a functional group capable of reacting with a metallic compound in the state of being dispersed in water and a carbon-carbon double bond capable of coordination polymerization in one molecule.

12. A polyolefin resin composition comprising the polyolefin graft copolymer of any one of Claims 1 to 11 and a polyolefin resin.

13. A process for preparing the polyolefin graft copolymer of any one of Claims 1 to 11.